

Spot Safety Project Evaluation

Project Information

Order ID: 41000030294

Project ID: 09-09-1275

Location: SR 1396 (Linwood-Southmont Rd) near SR 1107 (Riverhouse Road)

County: Davidson

City: Lexington

Division: 9

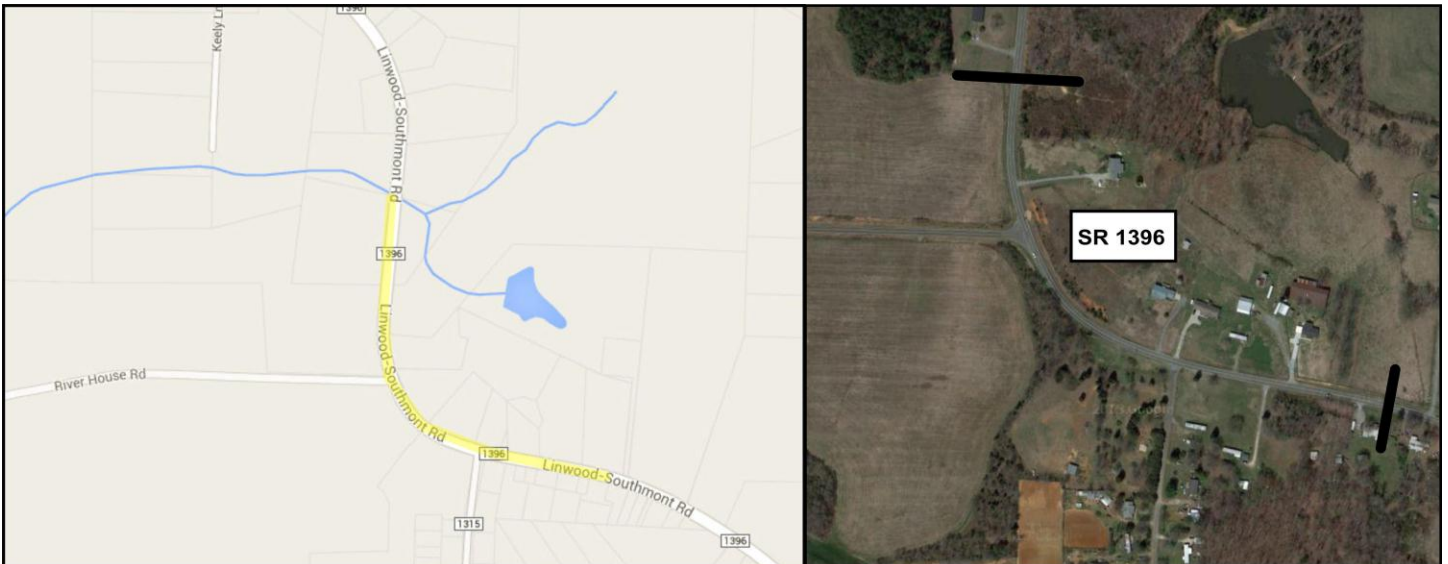
Signal ID: N/A

Countermeasure: Relocate utility pole to location less likely to be struck by errant vehicles
Erect new 35 mph sign with northern curve warning sign
Erect new curve warning and 35 mph sign south of curve
Erect new chevron curve warning signs along curve

Project Completion: August 4, 2010

Project Cost: \$6,600

Map and Aerial (from Google Maps, Google Coordinates are -- 35.675618,-80.281952)



Naive Before and After Analysis

Before Period: June 1, 2006 through June 30, 2010 (4 years, 1 month)

Const. Period: July 1, 2010 through August 31, 2010

After Period: September 1, 2010 through September 30, 2014 (4 years, 1 month)

Analysis Criteria: Treatment data consisted of all crashes within 500' north and south of the curve warning signs on SR 1396 near the intersection with SR 1107 (mp: 6.21 – 6.64).

Target Crashes: Lane Departure Crashes (Ran-Off Road, Fixed Object, Rollover, Head-On, Sideswipe-Opposite Direction)

<u>Treatment Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	9	5	- 44.4 %
Total Severity Index	3.47	2.48	- 28.5 %
Target Crashes	7	4	- 42.9 %
Target Crash Severity Index	4.17	2.85	- 31.7 %
Volume (2008, 2012)	1,450	1,150	- 20.7 %

<u>Injury Crash Summary</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	0	0	N/A
Class B injury Crashes	1	0	- 100.0 %
Class C Injury Crashes	2	1	- 50.0 %
Property Damage Only	6	4	- 33.3 %

<u>Additional Information</u>	Before	After	Percent Reduction (-) Percent Increase (+)
Fixed Object Crashes (Target)	7	3	- 57.1 %
Rollover Crashes (Target)	0	1	+ 100.0 %
Fixed Object (Relocated Utility Pole)	2	0	- 100.0 %

Overall Summary Results

Total Crashes:	- 44 %	(reduction)
Total Crash Severity:	- 43 %	(reduction)
Target Crashes:	- 32 %	(reduction)
Target Crash Severity:	- 78 %	(reduction)
Volume:	- 21 %	(reduction)

Additional Summary Results

Fixed Object Crashes (Target):	- 57 %	(reduction)
Rollover Crashes (Target):	+ 100 %	(increase)

Items for Discussion/Concerns

Fixed object crashes were reduced from 7 crashes in the before period to 3 crashes in the after period.
Fixed object crashes with the utility pole that was relocated were eliminated in the after period.

Data Prepared For

The Traffic Safety Unit *of the*
Transportation Mobility and Safety Division *of the*
Division of Highways *of the*
North Carolina Department of Transportation

Data Prepared By










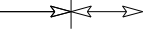


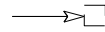
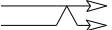


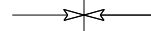



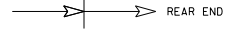







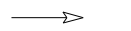




Principal Investigator: Elizabeth Scott, EI
Work Group/Consultant: Stantec Consulting Services Inc.
Date: November 14, 2014

Begin Study:
MP - 6.21

SR 1107 (River House Rd)

Utility Pole

SS# 09-09-1275
Order#41000030294
Davidson County
Before Period
6/1/2006 - 6/30/2010

	MOVING VEHICLE		ANGLE		9 MPH OR LESS		A ANIMAL
	PARKED VEHICLE		TURNING		10 MPH TO 19		P PEDESTRIAN
	PARKING VEHICLE		BACKING		20 MPH TO 29		B BICYCLE
	MOVABLE OBJECT		SIDESWIPE		30 MPH TO 39		T TRAIN
	HEAD ON		INJURY		40 MPH TO 49		* DRIVER AT FAULT
	REAR END		FATALITY		50 MPH TO 59		D DRY
	RAN OFF ROAD		SPEED UNKNOWN		60 MPH TO 69		W WET
	DAYLIGHT CRASH				70 AND UP		I ICY OR SNOWY
	NIGHT CRASH				Other		



SR 3115 (Greenwood Rd)

SR 1396 (Linwood - Southmount Rd)

ADT (Year)
1,450 (2008)

45 MPH

End Study:
MP - 6.64

 Lane Departure
Target Crashes

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
TRANSPORTATION MOBILITY and
SAFETY DIVISION

Date: 11/14/2014

Prepared By: ESS



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Begin Study:
MP - 6.21

SR 1107 (River House Rd)

Utility Pole, Removed & Relocated

SS# 09-09-1275
Order#41000030294
Davidson County
After Period
9/1/2010 - 9/30/2014

LEGEND					
	MOVING VEHICLE		ANGLE		9 MPH OR LESS
	PARKED VEHICLE		TURNING		10 MPH TO 19
	PARKING VEHICLE		BACKING		20 MPH TO 29
	MOVABLE OBJECT		SIDESWIPE		30 MPH TO 39
	HEAD ON		INJURY		40 MPH TO 49
	REAR END		FATALITY		50 MPH TO 59
	RAN OFF ROAD		SPEED UNKNOWN		60 MPH TO 69
	DAYLIGHT CRASH				70 AND UP
	NIGHT CRASH				ANIMAL
					PEDESTRIAN
					BICYCLE
					TRAIN
					DRIVER AT FAULT
					DRY
					WET
					ICY OR SNOWY
					Other

1

*

W

3

*

W

D

*

4

D

2

SR 1396 (Linwood - Southmount Rd)

ADT (Year)
1,150 (2012)

45 MPH

ROLLOVER

1

*

5

End Study:
MP - 6.64

* Countermeasure is the relocation of the utility pole on the eastern side of SR 1396 near the intersection of SR 1107 and additional signage



Lane Departure
Target Crashes

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
TRANSPORTATION MOBILITY and
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